

WCM Job Aid - May 2003

# **WARNING COORDINATION METEOROLOGIST**

## **JOB AID**

**May 2003**

**U.S. DEPARTMENT OF COMMERCE**  
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## I. INTRODUCTION

Welcome to your new position as Warning Coordination Meteorologist (WCM). The WCM is perhaps the most visible and dynamic position in the National Weather Service (NWS). The position allows for contact with the public and other customers of your office's products and services. The WCM position requires a significant amount of dedication and effort, but the results can be quite gratifying.

The WCM Job Aid's objective is to provide you a basic understanding of the WCM program's fundamental aspects. It will assist you in assessing office talent and resources and in identifying the most important steps to take when establishing your program. Once you have reviewed this guide, your WCM program should be functioning at a baseline level of efficiency. You will be familiar with the community outreach resources which are available in your area.

The WCM is the primary liaison between the NWS office and the external customer community. Below is a list of some of your primary duties.

- **Hazardous Weather Coordination** — You will work with emergency management groups and the media in your County Warning Area (CWA) to ensure that information regarding hydrometeorological hazards is efficiently passed to and from the NWS office. You will coordinate with these officials on issues such as hazardous weather awareness campaigns like StormReady and TsunamiReady. You will assist in hazards exercise development and local dissemination of weather information and also coordinate spotter networks in your CWA.
- **Service Evaluation** — You will act as the "customer service representative" regarding all service programs conducted by your office. You will conduct regular meetings with customer groups, review customer

feedback, and suggest product and program improvements (within NWS guidelines).

- **Spotter Training** — You will be responsible, directly or indirectly, for the training and maintenance of hazardous weather spotter groups in your CWA. You will be responsible for coordination with emergency managers (EMs) and spotter group leaders regarding training and operational procedures.
- **Public Education Program** — You will be responsible, directly or indirectly, for the hazardous weather education program in your CWA. Schools, businesses, industries, and civic organizations are some of the groups which will contact your office for preparedness information and hazardous weather talks. As the person charged with community outreach, you will also be called upon to promote the science of meteorology and an understanding of weather forecasting to schools and civic groups.
- **Administrative Duties** — You will serve as a member of the leadership team at your office; thus, you will serve as acting MIC when so designated. You will be responsible, directly or indirectly, for the status reports on your office's operational programs and suggested improvements. You will also be responsible for the preparation of Storm Data.
- **Senior Forecaster** — Your position description states that you will serve approximately 25 percent of your time as a senior forecaster on shift. This number will vary considerably depending on your schedule of activities and on the office's staffing level.

Clearly, the greatest challenge will be to successfully perform these duties with the limited office and personnel resources that will be present. To accomplish this:

- < you will need to be creative and willing to draw on the talents of your office's staff;
- < you will need to practice time and workload management concepts; and
- < you must delegate portions of these responsibilities to other staff members.

Please take the time to read and understand the WCM Job Aid in its entirety before performing any of the actions described here. The following is an explanation of the sections.

- < Section II of this guide outlines some time and workload management techniques that will assist you, not only with the establishment of your WCM Program but throughout your NWS career.
- < Section III describes the initial tasks you should undertake after arriving on station.
- < Section IV provides information regarding the identification of external customers.
- < Section V contains guidance for prioritizing your internal office and external customer needs
- < Section VI describes the resources you should use during your program's implementation.
- < Section VII contains a summary and discussion of the WCM Job Aid's primary contents.

The WCM Job Aid contains examples of some of the more pertinent actions and analyses described in the following sections. The text

and examples should be self-explanatory. However, if you do not understand any portion of the WCM Job Aid, contact your regional WCM.

## II. TIME AND WORKLOAD MANAGEMENT

### OBJECTIVE

After completing this section, the WCM will better understand the importance of effective time and workload management in efficiently handling the job's many demands and limited resources.

### DISCUSSION

As you can ascertain from the WCM's position description, many conflicting demands will be made of you, often all at once. The only effective way to deal with this problem is through proper time and workload management.

Those who develop organized planning systems usually say they experience considerably lower stress levels and markedly more control over their lives.

Aside from helping you deal with the day-to-day issues that you will face, effective time and workload management will help you to make mid-range and long-range goals. "To-do" lists can help get through "*the crisis of the day*," but for moving forward and planning for the future, more is needed. You need to establish mid- and long-range goals and develop your plans from these goals. These goals need to be set by you personally (Ideally, your goals in the workplace will be set by you with the aid of your MIC).

A planning system such as a daily planner or Personal Data Assistant (PDA) electronic planner is recommended not only to help you deal with the day-to-day issues that come up but

also to allow you to push ahead with your mid- and long-range goals. When goals are set as described below, accomplishing the individual components of your goals are more easily realized through the use of the planner.

## PRINCIPLES OF GOAL SETTING

- Brainstorm—write down **everything** you want to accomplish. Use your imagination.
- For each item, ask yourself **why** do I want to accomplish this? How will reaching this goal give me a better life or enhance my office or my career? If you can't answer those questions, the goal comes off the list (possibly to be added to a future list).
- Over the next 1 or 2 days, scale the list down to the most important 4 to 6 goals, considering some of the following points.
  - A. Make sure you balance your goals. Make some of your goals career goals...some office program goals...some family goals...some physical...some mental.
  - B. Make both goals in the short term (to allow you to see your success) and long term (to help you grow).
  - C. Goals must be in line with your fundamental values. If not, you are not as likely to pursue them aggressively.

## DEVELOPING A LIST OF SHORT/MID/LONG-RANGE GOALS

- For each of the goals you have decided to pursue:
  - A. Write down the goal in unambiguous terms. The goal should be written such that it is easy to know when it has been achieved. The goal should have a definite time by which it will be achieved.
  - B. What benefits will be realized from reaching this goal?
  - C. What are the obstacles to reaching this goal?
  - D. What are the knowledge, skills, and abilities required to reach this goal?
  - E. Who are the individuals, groups, or offices I will need to work with to reach this goal?
  - F. What is my plan of action to reach this goal? (Write it down! Writing it down helps us provide focus on what is important.)

### Example

WCM Mary Smith at the Weather Forecast Office (WFO) ABC wants to develop a goal of improving the Short Term Forecast Program. How does she do it?

- A. State the goal in unambiguous terms.

*"My goal is by June 200X, WFO ABC will show an overall increase in timeliness and utility of our Short Term Forecasts by our customers. The WFO will produce short, concise Short Term Forecasts."*

B. What are the benefits of reaching this goal?

*"Better service to the customers."*

C. What are the potential obstacles to reaching this goal?

*"Possible resistance to change by members of the forecast staff."*

D. What are the knowledge, skills, and abilities required to meet this goal?

**"Forecasters:**

*Knowledge, Ability and Skill: The knowledge of mesoscale meteorology and the ability and skill to convey that information in a meaningful manner as a short message to the media and the general public.*

**WCM:**

*Knowledge, Ability, and Skill: the knowledge of what the customer needs, the knowledge of what the forecaster needs to know to convey that information. The ability to work with the management team at the office and the forecasters to make sure the improvement program works as it should. The ability to work with the customer to design a product that meets their needs. The skill to get all groups involved to work together."*

E. Who are the individuals, groups, or offices I will need to work with to achieve this goal?

*"Short Term Forecast customers...to assess any perceived change in our forecasts.*

*Forecasters...to explain the new improvement program; to gain a "buy in" with them in administering the program.*

*MIC and SOO (Science and Operations Officer)...to obtain their support and assistance in implementing the program."*

F. What is my plan of action to reach this goal?

- " 1. *Ask selected customers questions about the NOW product both at the beginning and toward the end of the program. Questions will concentrate on timeliness, brevity, and usefulness of the Short Term Forecast...with special attention on the elimination of meteorological jargon.*
2. *Set up an initial meeting with my MIC and SOO to discuss the program and work to obtain their support.*
3. *Discuss the program with the forecasters at a forecaster or staff meeting. Explain to them the benefits of the program and work to obtain their support.*
4. *Work with the SOO to develop a 'Short Term Forecast Training Workshop.' for the WFO staff. Work on specifics involved in improving the product.*
5. *Set up a program to monitor the Short Term Forecast and provide ongoing feedback to the forecasters."*

## IMPLEMENTING A PLANNER SYSTEM, DEVELOPING A PRIORITIZING SYSTEM, AND IDENTIFYING PRODUCTIVITY KILLERS

### Discussion

We have discussed how to put together a set of goals for planning daily, mid-term, and long-term results. To accomplish this, you will need a daily planning system like a PDA. Several companies are available that sell planning systems (talk to your MIC or SOO about planning systems they use, or call your regional WCM for advice). A typical planning system will have (among other features, such as a phone directory and a 3- to 6-year planning calendar) areas for (1) daily tasks ("to-do" lists and diaries), (2) monthly entries, (3) unscheduled tasks, and (4) goals.

Once you have a planning system in place, you can use it to track your activities and set priorities. You can break the tasks into three sections.

*"A" Tasks...* Tasks I **MUST** do today. Your workday doesn't end until these are done!

*"B" Tasks...* Tasks I **SHOULD** do today. If you get the "A" tasks done or are unable to work on them temporarily, these tasks are next. These may or may not be **URGENT** tasks, but they probably are **VITAL**.

*"C" Tasks...* Tasks I **COULD** do today. If you get the "A" and "B" tasks done or are unable to work on them temporarily, these tasks are next. These may be tasks that are "nice to do" but are neither **URGENT** nor **VITAL** at this time.

When you break the tasks into "A," "B," and "C" groupings, further rank them within their priority group as "A-1," "A-2," "B-1," "C-2," etc.

You will need to take 15 to 20 minutes a day to think about and plan your upcoming workday. Some find the last few minutes of the workday

best, others at bedtime or when they get up in the morning, and still others the beginning of the workday. But whatever the time, a daily look at the planner and prioritization of tasks is important.

### Example

Mary Smith at WFO ABC has set her goal to improve the Short Term Forecast. Now she will begin to break the steps into smaller portions, or subtasks. Each step may consist of several subtasks. To begin, Mary would start preparing subtasks for steps 1 and 2 of the plan from the previous section. (She couldn't, for example, start on Step 3, until she has met with the MIC and SOO and gained their support in the project.)

### Subtasks

- Make list of customers and questions.
- Set up meeting with MIC and SOO for Short Term Forecast (NOW) Project.
- Set up agenda for meeting with MIC and SOO.

Mary will have other tasks that don't relate to her goals but may or may not be important.

- Mary needs to return a call from John Carter, the Assistant State Civil Emergency Management Agency (CEMA) Director.
- Mary has a message to call Joe Ostrander, new CEMA Director for Shelby County, regarding spotter training.
- Mary has a customer inquiry card to fill out from Harry Slick, the copier salesman for the XYZ copier company.

Mary has set a goal to improve Short Term Forecasts, but it is part of her fundamental values to return phone calls promptly and to give special attention to the CEMA customers. With that in mind, here is how she prioritized her tasks.



- A1 — Return call from Joe Ostrander
- A2 — Return call from John Carter
- B1 — Make question/user list
- B2 — Set up meeting with MIC and SOO
- B3 — Set up agenda for MIC/SOO meeting
- C1 — Fill out Customer Inquiry card for Harry Slick

**Tip:** Only plan 3 to 4 hours of your day! Unscheduled tasks tend to take up the rest of the time. Scheduling 8 hours of tasks can lead to frustration, since it is next to impossible to achieve all that you plan in this case.

### Identifying Productivity Killers

Once you have set goals and broken them down to tasks and subtasks, there is one more hurdle to overcome in achieving your goals—the day-to-day distractions and other "*productivity killers*."

Phone calls, personal interruptions, and procrastination are just some of the things that limit our personal and office productivity.

### CONCLUSION

Time/Workload Management is necessary for sorting out priorities and putting the most important issues first. It is one way to successfully handle unlimited demands placed upon limited resources.

Most who have learned how to use time/workload management systems effectively say they feel less stress and more in control of their job and life in general.

*The first step is to set goals that are consistent with our overall values, and emphasize success in our job, and life in general.*

*The second step is to break the goals into small, daily subtasks.*

*The third step is to prioritize the subtasks and track their completion with a daily planner.*

Important throughout this process is to identify those "*productivity killers*" which reduce our success on the job.

## III. ACCLIMATION TO THE NEW JOB

### OBJECTIVE

The objective of this section is to provide you with a method for acclimating yourself to your new office. When you have completed this section, you will have a basic understanding of your office's management structure. You will be familiar with the forecast operations performed by the office, and you will have an understanding of your personal training needs.

### DISCUSSION

Once you arrive at your new office, you probably will be eager to dive into the duties described in section I. However, you will need to allow yourself some time to become acclimated to your new surroundings. In all likelihood, it will take several weeks to thoroughly complete this process. As a first step, you may want to read through the entire WCM Job Aid before proceeding with any of these actions.

This will give you a better appreciation of the duties and responsibilities involved in your job, and it will help you identify the particular strengths and weaknesses regarding various aspects of the WCM program. Shortly after arriving on station, contact or visit your regional WCM, and contact Weather Service Headquarters (WSH), the National WCM Program

Manager. Phone numbers for these individuals are included in the Directory of Useful Links.

## MANAGEMENT STRUCTURE

One of your first actions should be to meet with your office leadership teammates: MIC, SOO, Service Hydrologist (SH), Information Technology Officer (ITO), Data Acquisition Program Manager (DAPM) and Electronic Systems Analyst (ESA). While both the WCM and the SOO are tasked with acting MIC responsibilities during the MIC's absence, your management background is likely different than the SOO's. Each office's leadership team has unique characteristics, and the team members at each office will likely interact in a different manner. Determine how your role will complement the other members of the team.

On a more personal level, you should review your position description as soon as possible after arriving on station. See the Directory of Useful links for the generic WCM position description. Networking with Regional Headquarters, WSH, and neighboring WCMs will be crucial to ensure that you have an adequate Personal Computer (PC), an E:Mail software package, and a current E:Mail address. Talk to your office ESA, ITO, MIC or your regional WCM if you need assistance with these resources.

## OFFICE OPERATIONS

You will need to become proficient in your office's warning and forecast programs before you can evaluate the services provided by your office. Familiarize yourself with your new CWA. Plan on working several forecast training shifts early in your tenure so that you can become familiar with your office's operations policies and the Interactive Forecast Preparation System (IFPS). You should review the NWSI Directives concerning forecast operations in general, and your office's Station Duty Manual for specific instructions regarding your office.

## TRAINING NEEDS

You should review the appropriate NWSI Directives for the WCM duties applicable to various applied service programs. A list of these Directives is included in the Directory of Useful Links. Your responsibilities as WCM require that you be proficient in not only WCM skills but in leadership techniques, NWS operations, and concepts of emergency management.

Your Regional Headquarters should have a WCM mentor program in which a veteran WCM is paired with a newer WCM. The veteran then serves as an additional resource for any operational questions the new WCM may have. Contact your regional WCM or focal point and request a WCM mentor. Contact one of your local EMs for information on joining the state and local emergency management associations. This will allow you to "network" with many of the EMs in your area, and it will provide another source of expertise on which you can draw. Contact your State Emergency Management Training Officer for the suite of Federal Emergency Management Agency (FEMA) Emergency Management Institute (EMI) Training courses available to you.

## JOB ACCLIMATION CHECKLIST

### A. Management Structure

- \_\_\_\_ 1) Acquaint yourself with your MIC and office leadership team.
- \_\_\_\_ 2) Read your position description.
- \_\_\_\_ 3) Determine how the MIC, WCM, SOO, ITO, SH, DAPM and ESA interact within the office.
- \_\_\_\_ 4) Ensure you are on the national E:Mail mailing list for WCMs. Talk to the WCM program leader at NWSH for details.

## **B. Office Operations**

- \_\_\_\_ 1) Review Station Duty Manual.
- \_\_\_\_ 2) Review local operational handbooks.
- \_\_\_\_ 3) Review appropriate operational NWSI Directives
- \_\_\_\_ 4) Become proficient in operational shifts and programs.

## **C. Training Needs**

- \_\_\_\_ 1) Review appropriate NWSI Directives
- \_\_\_\_ 2) Determine your personal training needs (based on areas in which you may lack experience).

WCM Course (see Professional Development section in Directory of Useful Links for a complete list of training opportunities available).

Management training courses available through the Office of Personnel Management (OPM), local colleges, universities, and other sources.

Emergency management training through FEMA's Emergency Management Institute (EMI) and your state emergency management office's training officer.

Amateur radio courses (No-code Technician License).

National Weather Service Training Center (NWSTC) Leadership Courses.

- \_\_\_\_ 3) Ask your regional WCM for a WCM mentor, an experienced WCM who can help answer routine operational questions.
- \_\_\_\_ 4) Have your office join local and state emergency management associations.

## **CONCLUSION**

By now, you should have a better feel for your place in the office's leadership team and be comfortable with at least the routine weather operations performed by your office. You should have a conceptual understanding of your role in evaluating the office's services, and you should have at least a rough mental outline of the training courses you will need to take over the next several months.

Once you have reached this state of relative comfort in your office, you are ready to begin identifying and evaluating the internal programs and external services provided by your office. Consult with your MIC if you feel uncomfortable about any aspects of your office acclimation. Contact your WCM mentor, Regional Headquarters staff, or WSH personnel with any other questions regarding your training curriculum.

## IV. IDENTIFYING AND ASSESSING OFFICE PROGRAMS

### OBJECTIVE

The objective of this section is to provide you with guidelines and issues for identifying the service programs provided by your office. At the end of this section, you will have an evaluation of the office staff's knowledge of the programs. You will have determined if technology and quality assurance programs are in place, and you will determine how well services support customers' needs.

### DISCUSSION

As WCM, you are expected to be knowledgeable of all NWS programs, products, and services in your office's area of responsibility. In reality, very few WCMs possess this knowledge when they are first assigned to a new office. Even WCMs who have worked previously at the office, as a forecaster or even as prior management, can have a limited or unrepresentative perspective of NWS service programs. A perspective that is limited or unrepresentative will lead to poor assessment and could seriously compromise a program.

Thus, a systematic inventory must be made of the office's new and established programs, products, and services. This must include a determination of the status of those who prepare and provide the products and services. The Program Issues list (shown on the following pages) is the primary tool you should use when conducting this inventory. For each program, the list contains a brief synopsis of the program, subjects which should be emphasized in program-related training, and questions which should be used to evaluate the program. You must utilize the diagnostic skills of the SOO, ITO, SH, DAPM, ESA, and program focal

points to make an effective and balanced assessment.

### PROGRAM ISSUES TO CONSIDER

#### A. Hydrometeorological Short-term Warnings, Watches, and Statements

The NWS severe weather and hydrometeorological warning and watch program directly addresses the NWS mission. While capital investment (i.e., WSR-88D, AWIPS, ASOS, and CRS technology), provides a sound foundation for the program, a similar investment in personnel training is essential to meeting the challenge of providing the service to protect life and property.

The warning process truly begins during the training phase of the operational staff. Proficiency in anticipation of the severe weather event, as well as the early detection of severe weather is at least as important as the development of the warning message itself. Likewise, the warning process is directly affected by external contacts with all entities outside of NWS that share in the responsibility of public safety.

#### Internal Issues

Does the staff possess the knowledge and skill to conduct analytical functions, prepare and issue effective products, and to assimilate hydrometeorological experiences to improve their conceptual models?

Target areas:

- Training
- Event Anticipation
- Detection Capability
- Decision-making Capability
- Product Dissemination
- Post-event Verification

### **External Issues**

Who uses these products, and does the program support the customer's needs?

Remember, NWS programs, products, and services are designed to serve the public. It is very easy for a WCM to view public safety service agencies, such as an emergency management agency, as the primary focus of our products and services. As you evaluate the customer's needs, differentiate between team members (i.e., emergency management, the media, and the public in general). Use EMs, law enforcement, media, and disaster preparedness/relief services in making this assessment.

### **B. Hydrometeorological Long-term Warnings, Watches, and Statements**

#### **Internal Issues**

Does the staff possess the knowledge and skill to conduct analytical functions, prepare and issue effective products, and to assimilate hydrometeorological experiences to improve their conceptual models?

Target areas:

- Training
- Detection Capability
- Decision-making Capability
- Product Dissemination
- Post-event Verification

#### **External Issues**

Who are the customers of these products, and does the program support the customer's needs?

### **C. All Hazards**

Do you understand the all-hazards concept? The term "*all hazards*" is not new although, since the attacks of September 11<sup>th</sup>, 2001, it has been given new emphasis and attention by many customers both inside and outside the NWS. If

you need information, it is recommended that you contact your regional Climate, Weather, and Water Division (CWWD) or Meteorological Services Division (MSD) for a regional briefing. That should be followed with a visit to your state or regional EM.

### **Internal Issues**

Your goal is to identify where your office's functions lie within the arena of support to other public service agencies before, during, and after disaster events, including non-hydrometeorological events.

Target subjects:

- Hazards Risk Assessment  
(resource—emergency managers)
- How hydrologic and/or meteorological events can affect a HAZMAT, biological or chemical release or accident.
- Communication—warning those who are in harm's way (using AWIPS products, EAS, NWR announcements, EMWIN, EWARN, Pager systems, and NAWAS).

Are meteorologists and hydro-meteorological technicians aware of the hydrometeorological needs of first responders (e.g., law enforcement, incident commander, emergency manager) for all hazards (i.e., HAZMAT, terrorist attacks, earthquakes, tsunamis, etc.)?

### **External Issues**

Are you a member of an all-hazards exercise team like the Local Emergency Planning Committee (LEPC) in your CWA? If not, contact your local emergency management agencies.

Does your office have the latest printing of the Federal Response Plan? If not contact your regional CWWD or MSD.

What is your office's role in the Federal Emergency Response Plan?

#### **D. Marine**

To provide effective marine products, meteorologists are challenged to understand the interaction (cause and effect) between air and sea. Forecasters must prepare their products using widely spaced observations. Furthermore, to be effective, adverse weather information, in the form of forecasts, advisories, and marine warnings, must be given far enough in advance so as to give leisure boaters and professional mariners time to respond. Their crafts move relatively slowly when compared to the progression of storm systems. The combination of moderate to high winds over long fetches can create perilous waves to most mariners.

##### **Internal Issues**

Do the meteorologists possess first hand experience and/or solid theoretical understanding of the effects of weather and sea conditions upon the various types of marine activity? Does this experience and knowledge readily translate to good quality marine products?

Target areas:

- Training
- Detection Capability (buoys, C-MAN)
- (Mariner Report)
- Decision-making Capability
- Product Dissemination
- Post-event Verification

##### **External Issues**

Does the program support the customer's needs? Is there a Port Meteorological Officer (PMO) in your office or a neighboring office who will work with the SOO and the rest of your staff in seminars or workshops?

#### **E. Fire Weather**

NWS provides specialized meteorological support to the Nation's Fire Weather Program, especially during disastrous widespread forest fires. Specially trained fire weather meteorologists, called Incident Meteorologists (IMETs) are dispatched with special field equipment to on-site forest fires. While on site, these forecasters take critical temperature and wind observations. They prepare tailored weather forecasts to meet the needs of the incident commander and the fire fighting team. IMETs may also be dispatched to support HAZMAT incidents (part of the all-hazards concept) for the Emergency Management community.

##### **Internal Issues**

Do you and your staff possess sufficient knowledge of the Fire Weather Program to produce effective forecasts?

Is there a Quality Assurance program in place?

##### **External Issues**

Does the program support the customer's needs?

#### **F. Aviation**

##### **Internal Issues**

Do you and your staff possess sufficient knowledge of the NWS program and how it applies to aviation products and services in your office's area of responsibility? This may include the Airport Weather Warning (AWW).

Is there a Quality Assurance program in place?

### **External Issues**

Does the aviation program support the customer's needs? (Your aviation focal point should be able to facilitate a better understanding of the products and services.)

### **G. Public Forecasts**

#### **Internal Issues**

Does your staff possess sufficient knowledge of the NWS public program (routine zone and short-term forecasts) and how these products are used to convey critical severe weather warning and watch information to the general public?

Is there a Quality Assurance program in place?

#### **External Issues**

How do the forecasters get feedback from the media, emergency managers, and/or the general public? Does the program support the customer's needs?

### **H. Hydrology**

Service Hydrologists (SH) and Hydrology Focal Points are program managers. In some offices where the SH is also a meteorologist, the SH may work shifts in the operational area. In most situations though, it is the forecaster and hydrometeorological technicians who bear the responsibility of acquiring hydrologic data, preparing and issuing hydrologic products, and working with the Advanced Hydrologic Prediction Service (AHPS), providing hydrologic services to both the general public and various non-NWS agencies.

#### **Internal Issues**

Does your staff possess knowledge of the NWS program and how its products and services affect both the general public and specific customers in the CWA? Is the

staff proficient in acquiring hydrological data and using E19 data to prepare effective hydro-logic products? Does the staff understand the functions of the River Forecast Center(s)?

Is there a Quality Assurance program in place?

### **External Issues**

With your SH, identify agencies in the CWA who provide hydrological data and/or use NWS hydrologic data, and those who use NWS hydrologic products, forecasts, statements, watches, and warnings.

Does the program support the customer's needs?

### **I. Communications**

#### **Internal NWS Coordination (intra-office and inter-office)**

Are there routine staff weather briefings (both on-shift and shift-to-shift briefings)?

Are there adequate coordination procedures with other NWS offices (adjacent WFO's and National Centers)?

Do you and your staff have the ability to detect communication failures and rectify problems ( or notify points of contact)?

#### **External Coordination (Non-NWS)**

Identify all customers of NWS products and services in the CWA (this process will be explained in detail in section V). How do customers obtain NWS products and services (e.g., Internet, NWWS, Law Enforcement Communication System, Family of Services, NWR, NAWAS, EMWIN, dedicated telephone, ham or other methods of radio briefing)?

Are customers aware of available products that serve their needs?

## **J. Storm Spotters**

Do you have a current listing of storm spotters or spotter group managers (trained and untrained) in your CWA?

Do you have adequate training material (both instructional material for handouts and audiovisual/multimedia resources)?

Is your storm spotter training material up-to-date with new advances in science/ communications technology?

Do your storm spotter trainers have adequate background in both the science and training aspect of their job?

What types of storm spotters exist, e.g., fixed, mobile, amateur radio, law enforcement, cellular phone, etc.?

Do your storm spotters address all kinds of hazards?

What is/are the storm spotter training program(s)? Who administers the program(s) (i.e., NWS, EMs, etc.)?

Is the storm spotter reporting system adequate?

Does the staff in forecast operations and all other participants (i.e., spotters, dispatchers, HAMs) understand the reporting communication system(s)?

## **K. Preparedness**

### **Internal Issues**

What seminars and drills have been conducted in the office (or inter-office) to maintain readiness?

Are all resources (i.e., hardware, software, reference aids [Station Duty Manual or

quick references]) readily available and adequate?

### **External Issues (Education and Awareness Campaigns)**

Does your office conduct a hazardous weather awareness campaign, including speaking engagements and cooperative projects with the local media?

Does your office participate in multi agency preparedness drills?

Who are the target groups?

General Public  
Public Emergency Services  
Media  
Specific Groups (e.g., Aviation, Marine, etc.)  
AERAs (Atmospheric Education Resource Agents)

Who in your office has worked with these groups in the past?

## **L. Public Education/Diversity**

Does your office conduct public education and community outreach campaigns? Do these campaigns reach a culturally and ethnically diverse cross section of your customers? Have you participated in activities to promote the service of the NWS to a wide variety of customers? Have you made assessments of whether or not warnings and forecasts are widely used across the diverse scope of your customers? (For example, do your warnings reach the non-English speaking sector of your CWA?)

Has your office participated in efforts to promote science in general, and meteorology in particular, to economically disadvantaged students and students of diverse backgrounds?

Who in your office has conducted outreach/ diversity campaigns in the past?



Who are the target groups?

General public  
Schools  
Business/Civic organizations  
Underserved Communities

## CONCLUSION

As you can see, this is a rather exhaustive survey of the programs which may be conducted at your office. After completing this evaluation, you should have a better understanding of how the office staff administers the service programs. Once the survey is complete, brief the members of the office leadership team on your findings, and suggest some methods for strengthening those programs which need attention. Use the talents of the SOO and other staff members with program expertise to develop training workshops and other enhancements for the weaker programs.

## V. IDENTIFYING SERVICE PROGRAM CUSTOMERS

### OBJECTIVE

After completing this section, the WCM will develop a method of identifying customers in each of the office's program areas. The WCM will utilize this method to identify and assess the users in their office's area of management.

## DISCUSSION

You have just completed an assessment of the service programs performed at your office. Next, you will identify the primary customers of these programs.

## CUSTOMER LISTS

Much as you did for the programs in your office, you will need to do a systematic inventory of the customers of each of your office programs. The customers under a particular program can be divided into these broad categories.

Federal Agencies  
Regional Agencies (i.e., multi state areas)  
State Agencies  
District Agencies (i.e., part of a state)  
Local Agencies  
Industry/Utilities  
Other Private Sector  
Volunteer Organizations  
Media Outlets  
Schools  
Hospitals/Nursing Homes  
Churches/Synagogues/Places of Worship

## ASSESSING CUSTOMERS

Once you have identified your customers, you need to assess the relationship between your office and the customers. You should also determine the ability of the customers to adjust to newer products and services like the digital suite of products generated via the National Digital Forecast Database (NDFD). Some questions to ask in this area include:

### Internal Issues

Are there any new programs that require training for the office staff?

If so, are the appropriate training modules and guidelines in place or under development?

Will any hardware and software alterations be required for the successful implementation of these programs?

### **External Issues**

In each of the counties in your CWA, have you identified the emergency management agencies, media, school administrators, law enforcement agencies, and other primary customer groups?

Is contact with current customers adequate?

Are there any new programs or products which will require an enhanced external training program?

Are there any customer groups who require extra coordination contacts or other attention?

### **CONCLUSION**

After finishing this section, you will have an assessment of your office's customers to accompany the program assessment completed in Section V. By now, you should be developing a relationship between these two needs assessments.

You probably are also realizing that the time needed to address internal and external needs of office's service programs far outweighs the time you have available to serve these needs. To address these problems, you will have to draw heavily on the time and workload management techniques discussed in Section II. The concepts discussed in the next two sections—*"Prioritizing Needs"* and *"Utilizing Resources,"* respectively—will also be of assistance. While these sections will not reduce the total workload involved with the program, they will provide assistance in reducing the burden on you or any one individual at the office.

## **VI. PRIORITIZING NEEDS**

### **OBJECTIVE**

The WCM will develop a method for prioritizing the internal and external needs identified in earlier sections of the WCM Job Aid. The WCM will learn specific criteria for establishing the needs priorities.

### **DISCUSSION**

You now should have a comprehensive list of your office programs and customers. During the assessment process, a number of needs (programs which must be strengthened, customers who need to be contacted, etc.) should have appeared. Your next course of action will be to assess and prioritize these needs. Listed below are some guidelines for conducting this process.

#### **A. Internal Needs Assessment**

1. Meet with MIC, SOO, ITO, SH, DAPM and ESA.
2. Meet with office focal points ( AWIPS, ASOS, WSR-88D, CRS, Profiler, Hydrologic, Applications, etc.).
3. Get to know the rest of the staff better.
4. Hazards Risk Assessment—what natural or man made hazards might occur within the CWA that merit preparedness activities? Look at Significant Event Reports, Storm Surveys, or Storm Data for your CWA for the past several years.

These meetings and activities should be more detailed than the introductory activities

described in Section III. Through your previous briefings, the leadership team should be aware of any problem areas you may have uncovered. The purpose of the above-listed meetings is to gain specific input regarding the leadership team's priorities in addressing these areas.

### What do you need to assess?

- *Strengths/weaknesses of CWA service programs.* Which one(s) work(s) well? Which one(s) need(s) attention?
- *Strengths/weaknesses of office personnel.* What does the staff do well? What does the staff not do well? Is extra training needed in these cases or just a bit more feedback on the job that's being done?
- *Facilities and equipment.* This is best done with the assistance of your ITO, ESA and electronic technicians. Is the office layout optimum for your office operations? Include the following in your assessment.
  - Warning workstations and communication equipment including:
    - AWIPS/PC Workstations
    - NAWAS
    - Ham or other radio equipment
    - Teleconferencing
  - NOAA Weather Radio
  - Forms and paperwork used in operations. Do they optimize efficiency? Do they get in the way?
  - Hazardous Weather Communications Protocols. Is the office staff trained to do the job when there is hazardous weather? Is additional training/feedback needed?

systems.

and CRS.

### B. Regional Input/Weather Service Headquarters' Input

Call or visit your Regional WCM, and call the NWSH WCM Program Leader shortly after you begin the job. These people are experts in the WCM program who will be able to help you identify the highest priorities in your new job.

### C. External Assessment

1. Identify and visit primary customers, such as emergency management, television, radio, newspapers (refer to Section V).
2. Ask customers to be honest in their assessment of services. Ask them what they like and don't like. **BE PREPARED TO LISTEN...AND BE PREPARED TO ACCEPT CRITICISM!** People generally like our services, but there will be some complaints. Listen to them. If the comments are legitimate, then take this opportunity to improve services!
3. Travel with the MIC when possible. They can introduce you to many of your customers unless the MIC is also new to the office.

### D. Assimilate Feedback to Determine Program Priorities

1. Brief your office leadership team and the office staff on your trip finding. Ask for any additional experiences or input on the customers they may have.
2. Use criteria such as:
  - (a) *Size and importance of customer group.* Large disseminators of information or officials responsible for a significant portion of the population are examples of groups who should receive a high priority.

- (b) *Impact of Hydrometeorological Event on the Community.* Request copies of the hazards analyses for communities in your CWA from local EMs. Use the results from these analyses to help prioritize your awareness campaigns. For example, along the Gulf coast, an office's hurricane program would likely receive a high priority, while the winter weather program may receive less attention.

## CONCLUSION

You now should have your "game plan" for the first several months of WCM activity laid out. You have identified and evaluated your office's service programs. You have identified your customers and assessed their needs. With input from numerous sources, this section has helped you prioritize these needs. The next section of the WCM Job Aid will assist you in using on-station and external resources to serve the multitude of needs in your area.

## VII. UTILIZING RESOURCES

### OBJECTIVE

After completion of this section, the WCM will have a better understanding of the various resources available, how to effectively use those resources, and where and how to order those resources.

## DISCUSSION

### A. Inventory of Existing On-Station Resources

Take a look around your office and see what you have available in the way of these resources and what you might need.

1. Audiovisual Equipment
  - (a) LCD/video projectors
  - (b) Multimedia laptops
  - (c) VCR's
  - (d) Digital quality Video cameras and camcorders
  - (e) Audio cassette players
  - (f) Digital quality CDs/DVDs
2. Hazard Awareness and Preparedness Materials
3. Post-Storm Data Acquisition (PSDA) Survey Equipment

### B. Inventory of Regional/National Resources

1. *WCMs in Adjacent Offices*  
These WCMs may prove especially valuable to you since they may be more attuned to regional problems than any other source.
2. *Regional WCM*  
You should call or visit your Regional WCM shortly after you report to your new station. The Regional WCM is really part of the "support staff" and can make your job of allocating resources much easier.
3. *Regional Public Affairs*  
Do you need help at a briefing? Would you like some advice on conducting interviews and media relations? Do you need a complete list of media contacts for your CWA? Your Regional Public Affairs experts can assist you with any or all of these. You and your MIC will decide how you and the Regional PA's will combine to achieve your goals.
4. *WSH Assistance*  
It is highly recommended that you call the WCM Program Leader at NWSH soon after arriving on station. The WCM Program Leader can assist you

in understanding the Warning Coordination and Hazard Awareness Program on a national level. They can also provide preparedness and modernization resources such as literature, videos, and other presentations.

### **C. Inventory of External (Outside NWS) Sources**

1. *AERAs (Atmospheric Education Resource Agents)*  
The AERAs are teachers (mostly high school) working with the American Meteorological Society (AMS) as a part of Project ATMOSPHERE. There is at least one AERA per state.

AERAs can be a valuable resource to you. If you deal with educators who need ideas for science projects or atmospheric science curricula, you can refer them to the AERAs for assistance. You, in turn, may be requested to teach a group of AERAs or conduct office tours for them.

2. *American Red Cross*  
Cultivate a working relationship with the Red Cross chapters in your CWA. They are heavily involved with both disaster preparedness and the recovery phases of disasters. Thus, they can help you "*spread the word*" about preparedness, and after disaster strikes, they can be a reliable source of storm damage information. Local chapters also teach a variety of courses on disaster preparedness and assessment.
3. *Local Media Outlets*  
Get to know the local television, print and radio media in your CWA. These people can help you disseminate your educations, preparedness and awareness messages as well as providing Emergency Alert System (EAS) notification during critical weather.

4. *Local Business/Private Sector*  
Government/Private sector joint ventures are encouraged. The NWS cannot specifically endorse a particular company or product, but we can acknowledge a company's participation in a joint venture.

### **D. Ordering Resources**

1. *Equipment/Audiovisual Materials*  
These should be ordered through the MIC and routed to the Regional CWWD or MSD for guidance and assistance.
2. *NOAA Brochures*  
These may be ordered through the National Logistics Supply Center (NLSC) in Kansas City, Missouri, using the Publications Requisition Form (NOAA Form 24-12) or Stores Requisition Form (NOAA Form 37-4) or by calling NLSC directly. See Directory of Useful Links for a list of NWS publications.
3. *Ordering External Resources*  
Methods for ordering external resources will vary, based upon such factors as what is being ordered and the amount of the order. Contact your regional WCM for guidance.

## VIII. PUTTING IT ALL TOGETHER

### OBJECTIVE

In this section, the WCM will begin implementation of their program. The WCM will use the findings of their earlier assessments to define the short-term actions and long-term goals.

### DISCUSSION

You have now laid the groundwork for your WCM program. In earlier sections of the WCM Job Aid, you:

- familiarized yourself with the office leadership team.
- learned some fundamental time management skills.
- became acquainted with office operations.
- assessed the status of service programs in your office.
- identified the customers for your office's products.
- prioritized the internal and external needs in your area.
- located resources for the program's implementation.

Now, the time has come to implement your program. From the assessments and prioritizing you have conducted, some short- and long-term goals and action items should be apparent. The program implementation will require a great deal of time, effort, and travel, involving not only yourself but many members of your office's staff. Nevertheless, this is a necessary and vital part of your duties as WCM.

### TASKS TO ACCOMPLISH

From your internal and external assessments, write down three short-term action items (i.e., "hot" topics which need to be addressed in the next month or so) and three long-term goals you have for your WCM program (i.e., major program enhancements you plan to attain over the next year or so).

#### Short-term Items

- 1)
- 2)
- 3)

#### Long-term Goals

- 1)
- 2)
- 3)

Brief the office leadership team on your plans, and emphasize the time needed to accomplish these tasks. Finally, contact your Regional WCM and inform them of your plans.

### CONCLUSION

Congratulations, you've started your WCM program rolling! As you follow through on your array of tasks, duties, and goals, ensure that you keep your office and Regional management abreast of your efforts. Keep in regular contact with your Regional program managers, who will provide feedback on your projects and inform you of any changes in philosophy regarding the WCM program.

Once again, if you have any questions or problems regarding your program, please contact your WCM mentor or your Regional WCM. If you have any special resource requests, ask away! Your Regional and National WCM program managers truly are there to provide support and to assist you in doing your job as WCM.

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